

### **IN THE CLAIMS**

Under 37 C.F.R. § 1.121(c), please amend the claims as indicated below; a complete listing of the claims is provided pursuant to 37 C.F.R. § 1.121(c)(1):

1. (Currently Amended) A permselective asymmetric hollow fibre membrane for the separation of toxic mediators from blood, comprised of at least one hydrophobic polymer and at least one hydrophilic polymer, wherein said membrane comprises a separation layer and the separation layer is the inner most layer of the hollow fibre membrane, and wherein said membrane allows passage of molecules having a molecular weight of up to 45000 Daltons, with a sieving coefficient of 0.1-1.0 in the presence of whole blood, has a sieving coefficient for IL-6 in the presence of whole blood of 0.9-1.0, and has a molecular weight exclusion limit of about 200,000 Daltons;

wherein the membrane allows the retention of a portion of albumin in the presence of whole blood.

2. (Previously Presented) A membrane according to claim 1, wherein said at least one hydrophilic polymer and said at least one hydrophobic polymer are present in the membrane as domains on the surface,

wherein the size of the hydrophilic domains are in the range of 20-50 nm.

3. (Previously Presented) A membrane according to claim 1 wherein said at least one hydrophobic polymer is present in an amount of 50-80 weight%, based on the weight of the membrane.

4. (Previously Presented) A membrane according to claim 1 wherein said at least one hydrophilic polymer is present in an amount of 20-50 weight%, based on the weight of the membrane.

5. (Previously Presented) A membrane according to claim 1, wherein said at least one hydrophobic polymer is chosen from the group consisting of polyarylethersulfone (PAES), polypropylene (PP), polysulfone (PSU), polymethylmethacrylate (PMMA),

polycarbonate (PC), polyacrylonitrile (PAN), polyamide (PA), and polytetrafluorethylene (PTFE).

6. (Previously Presented) A membrane according to claim 1, wherein said at least one hydrophilic polymer is chosen from the group consisting of polyvinylpyrrolidone (PVP), polyethyleneglycol (PEG), polyvinylalcohol (PVA), and copolymer of polypropyleneoxide and polyethyleneoxide (PPO-PEO).

7. (Previously Presented) A membrane according to claim 1, wherein said membrane has at least a 3-layer asymmetric structure.

8. (Cancelled).

9. (Previously Presented) A membrane according to claim 1, wherein the separation layer has a thickness of  $< 0.5 \text{ um}$ .

10. (Previously Presented) A membrane according to claim 1, wherein the separation layer contains pore channels.

11. (Previously Presented) A membrane according to claim 1, wherein the pore size in the separation layer is 15-60 nm.

12. (Canceled).

13. (Currently Amended) A membrane according to claim 1, wherein the sieving coefficient for albumin in the presence of whole blood is below 0.05.

14. (Currently Amended) ~~A membrane according to claim 1, wherein the openings of the~~ A permselective membrane, comprised of at least one hydrophobic polymer and at least one hydrophilic polymer, wherein said membrane is provided with pores on the outer surface, wherein the average diameter of said pores is ~~are~~ in the range of 0.5-3 um and the number of said

pores is in the range of ~~10,000 to 150,000~~ 20,000 to 100,000 pores/mm<sup>2</sup>, further wherein the structure of said membrane:

a) allows passage of molecules having a molecular weight of up to 45000 Daltons, with a sieving coefficient of 0.1-1.0 in the presence of whole blood;

b) has a sieving coefficient for IL-6 of 0.9-1.0 in the presence of whole blood;

c) has a molecular weight exclusion limit of about 200,000 Daltons.

15. (Previously Presented) A membrane according to claim 14, wherein said membrane has a four-layer asymmetric structure.

16-28. (Cancelled).

29. (Previously Presented) A membrane according to claim 11, wherein the pore size in the separation layer is 20-40 nm.

30-34. (Canceled).

35. (New) A permselective membrane produced by  
providing a nozzle having two concentric openings;  
extruding a polymer solution through an outer ring slit of said nozzle while  
simultaneously extruding a centre fluid through an inner opening of the nozzle;  
heating the nozzle, the polymer solution and the centre fluid to a temperature ranging  
from 30° C to 80° C during said extrusion step.

36. (New) The permselective membrane of claim 35 wherein the polymer solution comprises 10-20 weight % of a hydrophobic polymer and 2-11 weight % of a hydrophilic polymer; and

the centre fluid comprises 45-60 weight % of precipitation medium, selected from the group consisting of water, glycerol and other alcohols, and 40-55 weight % of a solvent and devoid of any hydrophilic polymer.